RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 12/17/2004
PATENT APPLICATION: US/10/516,795 TIME: 15:49:32

Input Set : N:\FATIMA\10516795.txt

Output Set: N:\CRF4\12172004\J516795.raw

```
3 <110> APPLICANT: Susan M. Freier
             Brenda F. Baker
             Kenneth W. Dobie
      7 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF STEROL REGULATORY ELEMENT-BINDING
PROTEIN-1
                                                                       (ps.6)
             EXPRESSION
    10 <130> FILE REFERENCE: ISISO046-500
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/516,795
C--> 12 <141> CURRENT FILING DATE: 2004-12-03
    12 <150> PRIOR APPLICATION NUMBER: US 10/161996
    14 <151> PRIOR FILING DATE: 2002-06-04
    16 <160> NUMBER OF SEQ ID NOS: 273
    19 <210> SEQ ID NO: 1
    20 <211> LENGTH: 20
    21 <212> TYPE: DNA
    22 <213> ORGANISM: Artificial Sequence
    24 <220> FEATURE:
    26 <223> OTHER INFORMATION: Antisense Oligonucleotide
    28 <400> SEQUENCE: 1
    29 tecgteateg etecteaggg
                                                                              20
    32 <210> SEQ ID NO: 2
    33 <211> LENGTH: 20
    34 <212> TYPE: DNA
    35 <213> ORGANISM: Artificial Sequence
    37 <220> FEATURE:
    39 <223> OTHER INFORMATION: Antisense Oligonucleotide
    41 <400> SEQUENCE: 2
    42 gtgcgcgcga gcccgaaatc
                                                                              20
    45 <210> SEQ ID NO: 3
    46 <211> LENGTH: 20
    47 <212> TYPE: DNA
    48 <213> ORGANISM: Artificial Sequence
    50 <220> FEATURE:
    52 <223> OTHER INFORMATION: Antisense Oligonucleotide
    54 <400> SEQUENCE: 3
    55 atgcattctq cccccaaqqa
                                                                              20
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    59 <211> LENGTH: 4154
    60 <212> TYPE: DNA
    61 <213> ORGANISM: H. sapiens
    63 <220> FEATURE:
    65 <221> NAME/KEY: CDS
    66 <222> LOCATION: (167)...(3610)
    68 <400> SEQUENCE: 4
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Input Set : N:\FATIMA\10516795.txt
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71		agcg	gc g	gcgg	cgac	t ga	gagc	cggg	gcc	gcgg	ıcgg	cgct	ccct cc a	ag g	aagg ac g		
	cca Pro																223
	gat Asp 20																271
	atc Ile																319
89	gct Ala				gca												367
93	tcc Ser			agc					cct								415
97	gaa Glu		ttc					cag					ccc				463
101 102		cag Gln					cca Pro					c ccg				gct Ala 115	511
105	ttc Phe	tcc				ggt Gly	atc				tca Sei	a gtg				atc Ile	559
109	ctg Leu				acc Thr	сса				g cca ı Pro	ggg				cca Pro	cag Gln	607
113	agc Ser			gcc Ala	cca				caç Glr	tto				cct Pro	gto	tta Leu	655
117	ggc Gly		ccc	ago				ggc	tto				a ago Ser	cct		ggg Gly	703
121 122	aac	acc	cag				cct	ggo				g gct ı Ala	tcc			ggg Gly 195	751
125	gtc Val					ttg Leu	cac				c caç . Glr	gagt				cag Gln	799
129	cag Gln				gto Val	aca				acg Thr	gca				aco Thi	acc Thr	847
133	act			tcg	cag				gto	ccg				cag	ccc	cac His	895

Input Set : N:\FATIMA\10516795.txt

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135			230					235					240				
							ctg										943
138	Phe	Ile	Lys	Ala	Asp	Ser	Leu	Leu	Leu	Thr	Ala	Met	Lys	Thr	Asp	Gly	
139		245					250					255					
141	gcc	act	gtg	aag	gcg	gca	ggt	ctc	agt	CCC	ctg	gtc	tct	ggc	acc	act	991
142	Ala	Thr	Val	Lys	Ala	Ala	Gly	Leu	Ser	Pro	Leu	Val	Ser	Gly	Thr	Thr	
143	260					265					270					275	
145	gtg	cag	aca	999	cct	ttg	ccg	acc	ctg	gtg	agt	ggc	gga	acc	atc	ttg	1039
146	Val	Gln	Thr	Gly	Pro	Leu	Pro	Thr	Leu	Val	Ser	Gly	Gly	Thr	Ile	Leu	
147				_	280					285		_	_		290		
149	gca	aca	gtc	cca	ctg	gtc	gta	gat	gcg	gag	aag	ctg	cct	atc	aac	cgg	1087
150	Ala	Thr	Val	Pro	Leu	Val	Val	Asp	Ala	Glu	Lys	Leu	Pro	Ile	Asn	Arg	
151				295					300		_			305			
153	ctc	gca	gct	ggc	agc	aag	gcc	ccg	gcc	tct	gcc	cag	agc	cgt	gga	gag	1135
154	Leu	Ala	Ala	Gly	Ser	Lys	Ala	Pro	Ala	Ser	Ala	Gln	Ser	Arg	Gly	Glu	
155			310	_		_		315					320	-	_		
157	aag	cgc	aca	gcc	cac	aac	gcc	att	gag	aag	cgc	tac	cgc	tcc	tcc	atc	1183
							Āla										
159	_	325					330			-	_	335	_				
161	aat	gac	aaa	atc	att	gag	ctc	aag	gat	ctg	gtg	gtg	ggc	act	gag	gca	1231
							Leu										
163	340					345			_		350		-			355	
165	aag	ctg	aat	aaa	tct	gct	gtc	ttg	cgc	aag	gcc	atc	gac	tac	att	cgc	1279
166	Lys	Leu	Asn	Lys	Ser	Āla	Val	Leu	Arg	Lys	Āla	Ile	Asp	Tyr	Ile	Arg	
167					360					365					370		
169	ttt	ctg	caa	cac	agc	aac	cag	aaa	ctc	aag	cag	gag	aac	cta	agt	ctg	1327
170	Phe	Leu	Gln	His	Ser	Asn	Gln	Lys	Leu	Lys	Gln	Glu	Asn	Leu	Ser	Leu	
171				375					380					385			
173	cgc	act	gct	gtc	cac	aaa	agc	aaa	tct	ctg	aag	gat	ctg	gtg	tcg	gcc	1375
174	Arg	Thr	Ala	Val	His	Lys	Ser	Lys	Ser	Leu	Lys	Asp	Leu	Val	Ser	Ala	
175			390					395					400				
177	tgt	ggc	agt	gga	ggg	aac	aca	gac	gtg	ctc	atg	gag	ggc	gtg	aag	act	1423
178	Cys	Gly	Ser	Gly	Gly	Asn	Thr	Asp	Val	Leu	Met	Glu	Gly	Val	Lys	Thr	
179		405					410					415					
181	gag	gtg	gag	gac	aca	ctg	acc	cca	CCC	CCC	tcg	gat	gct	ggc	tca	cct	1471
182	Glu	Val	Glu	Asp	Thr	Leu	Thr	Pro	Pro	Pro	Ser	Asp	Ala	Gly	Ser	Pro	
183						425					430					435	
185	ttc	cag	agc	agc	CCC	ttg	tcc	ctt	ggc	agc	agg	ggc	agt	ggc	agc	ggt	1519
186	Phe	Gln	Ser	Ser	Pro	Leu	Ser	Leu	Gly	Ser	Arg	Gly	Ser	Gly	Ser	Gly	
187					440					445					450		
189	ggc	agt	ggc	agt	gac	tcg	gag	cct	gac	agc	cca.	gtc	ttt	gag	gac	agc	1567
190	Gly	Ser	Gly	Ser	Asp	Ser	Glu	Pro	Asp	Ser	Pro	Val	Phe	Glu	Asp	Ser	
191				455					460					465			
193	aag	gca	aag	cca	gag	cag	cgg	ccg	tct	ctg	cac	agc	cgg	ggc	atg	ctg	1615
	Lys	Ala	Lys	Pro	Glu	Gln	Arg	Pro	Ser	Leu	His	Ser	Arg	Gly	Met	Leu	
195			470					475					480				
							çtg										1663
198	Asp	Arg	Ser	Arg	Leu	Ala	Leu	Cys	Thr	Leu	Val	Phe	Leu	Cys	Leu	Ser	
199		485					490					495					

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	•																
201	tgc	aac	ccc	ttg	gcc	tcc	ttg	ctg	ggg	gcc	cgg	ggg	ctt	ccc	agc	CCC	1711
202	Cys	Asn	Pro	Leu	Āla	Ser	Leu	Leu	Gly	Ala	Arg	Gly	Leu	Pro	Ser	Pro	
203	500					505					510					515	
205	tca	gat	acc	acc	agc	gtc	tac	cat	agc	cct	ggg	cgc	aac	gtg	ctg	ggc	1759
							Tyr										
207		-			520		-			525	_	_			530	_	
	acc	gag	aqc	aga	gat	qqc	cct	qqc	tga	qcc	caq	taa	ctq	ctq	ccc	cca	1807
							Pro										
211				535		2		2	540					545			
	ata	atc	t.aa		ctc	aat	999	cta		ata	ctc	atc	tcc	tta	ata	ctt	1855
							Gly										
215			550				- -1	555					560				
	ctc	ttt		tac	aat.	gag	cca		aca	caa	CCC	cac		aac	ccc	acc	1903
							Pro										
219	шси	565	• • • •	- 1 -	-		570			5		575		4-1			
	ata		ttc	taa	agg	cat	cgc	aaα	cad	act	gac		gac	cta	acc	caa	1951
							Arg										
223		+1-	1110		9	585	5	_,_	·		590					595	
		asic.	+++	acc	cad		gcc	cad	cad	cta		cta	acc	cta	caa		1999
		_		_	_	_	Ala	_	_	_		_	_	_			1,,,,
227	Gry	Asp	FIIC	AIG	600	AIG	AIG	GIII	GIII	605	111	пси	niu	шси	610	1114	
	ata	~~~	aaa	000		000	acc	tac	cac		asc.	cta	act	tat		ctc	2047
							Thr										2017
231	пец	GIY	Arg	615	пеп	PIO	1111	SCI	620	пец	АЗР	шец	AIG	625	JCI	DCu	
	ata	+~~	224		ata	aat	cac	cta		aaa	cat	ctc	taa		aac	cac	2095
							His										2093
235	пеп	тър	630	пеп	116	Arg	nra	635	цец	GIII	Arg	пец	640	Val	Ory	Arg	
	+~~	ata		~~~	aaa	~~~	999		ata	cac	cac	asc.	-	act	cta	caa	2143
							Gly										2143
239	пр	645	AIa	GIY	ALG	AIa	650	GIY	Бец	GIII	GIII	655	Cys	AIG	цси	nr 9	
	~+~		~a+	200	~~~	200		~~~	~~~	~~~	~~~		ata	tad	cat	220	2191
		_	_	_	_	_	gcc Ala	_	_	_							2171
242		Asp	Ala	ser	АТА	665	на	AIG	Asp	AIA	670	пец	vai	ıyı	nro	675	
								~~~				~~~	~~~	a.a	ata		2239
							atg										2233
	Leu	HIS	GIII	ьец		TIIL	Met	GIA	гуѕ		1111	GIY	GIY	nis	690	IIII	
247					680					685			~~~			~~~	2287
							agt										2201
	Ата	Thr	Asn		Ата	Leu	Ser	Ala		ASI	Leu	Ala	GIU		Ala	GIA	
251				695					700					705		~~~	2225
							acg										2335
	Asp	Ата		ser	vai	Ата	Thr		Ala	GIU	ire	Tyr		Ala	Ата	Ala	
255			710					715			<b></b> .		720				2202
							ctc										2383
	Leu	_	vai	Lys	Inr	ser	Leu	Pro	Arg	Ата	ьeu		Pne	ьeu	Thr	Arg	
259		725					730				_4-	735				<b>4</b>	2427
							cgc										2431
		Phe	Leu	Ser	ser		Arg	GIn	Ala	Cys		Ala	GIn	ser	GLY		
	740				•	745			. 🗅		750					755	0.55
265	gtg	cct	cct	gcc	atg	cag	tgg	ctc	tgc	cac	CCC	gtg	ggc	cac	cgt	ttc	2479

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266	Val	Pro	Pro	Ala	Met	Gln	$\mathtt{Trp}$	Leu	Cys	His	Pro	Val	Gly	His	Arg	Phe	
267					760					765					770		
						tgg											2527
270	Phe	Val	Asp	Gly	Asp	Trp	Ser	Val	Leu	Ser	Thr	Pro	Trp	Glu	Ser	Leu	
271				775					780					785			
						aac											2575
274	Tyr	Ser	Leu	Ala	Gly	Asn	Pro	Val	Asp	Pro	Leu	Ala	Gln	Val	Thr	Gln	
275			790					795					800				
277	cta	ttc	cgg	gaa	cat	ctc	tta	gag	cga	gca	ctg	aac	tgt	gtg	acc	cag	2623
278	Leu	Phe	Arg	Glu	His	Leu	Leu	Glu	Arg	Ala	Leu	Asn	Cys	Val	Thr	Gln	
279		805					810					815					
281	CCC	aac	CCC	agc	cct	ggg	tca	gct	gat	ggg	gac	aag	gaa	ttc	tcg	gat	2671
282	Pro	Asn	Pro	Ser	Pro	Gly	Ser	Ala	Asp	Gly	Asp	Lys	Glu	Phe	Ser	Asp	
283	820					825					830					835	
285	gcc	ctc	ggg	tac	ctg	cag	ctg	ctg	aac	agc	tgt	tct	gat	gct	gcg	<b>9</b> 99	2719
286	Āla	Leu	Gly	Tyr	Leu	Gln	Leu	Leu	Asn	Ser	Cys	Ser	Asp	Ala	Ala	Gly	
287			_	-	840					845					850		
289	gct	cct	gcc	tac	agc	ttc	tcc	atc	agt	tcc	agc	atg	gcc	acc	acc	acc	2767
						Phe											
291				855					860					865			
293	qqc	gta	gac	ccg	gtg	gcc	aag	tgg	tgg	gcc	tct	ctg	aca	gct	gtg	gtg	2815
						Āla											
295	•		870				-	875	-				880				
297	atc	cac	tqq	ctq	cqq	cgg	qat	qag	gag	gcg	gct	gag	cgg	ctg	tgc	ccg	2863
						Arg											
299	_	885	•		_		890					895	•		•		•
	ctq	ata	qaq	cac	ctq	ccc	cqq	ata	ctq	caq	qaq	tct	qaq	aqa	ccc	ctg	2911
						Pro											
	900					905					910			•		915	
		agg	qca	act	cta	cac	tcc	ttc	aaq	act	qcc	ċqq	qcc	ctq	ctq	qqc	2959
						His											
307		3			920				•	925					930	•	
	tat	acc	aaq	gca		tct	aat	cca	acc	agc	cta	acc	atc	tat	qaq	aaq	3007
						Ser											
311	-1 -			935			2		940					945		•	
	acc	agt.	aaa			cag	gac	agc		act	acc	aca	cca		agc	agc	3055
						Gln											
315			950	-1-		<b></b>		955					960				
	tcc	att		aad	acc	gtg	cad		ttc	cta	t.at.	gac		ctt	ctt	ata	3103
						Val											
319	JCI	965	пор	טעט	111 U	Vu1	970	Deu		Deu	C _I S	975					
	ata		200	add	cta	tgg		cac	cad	cad	ccc		acc	cca	acc	cca	-3151
						Trp											5252
323		T-A	TIIT	OCT	cu	985	y	<b>3111</b>	CIII		990	110	u	110		995	
		~~~	a=~	~~~	~~~	agc	200	200	000	020		taa	acc	ctt	asa		3199
						Ser											
	ATG	HIG	GIII	GTÅ	1000		Ser	wrd	FIO	1005		261	wid	neu	1010		
327		~~~		~~~		gac	at a	200	200			~~~	a+~	aas			3247
																	3431
330	arg	GTÅ	rne	GIN	Arg	Asp	ьeu	ser	ser	ьeu	Arg	Arg	ьeu	AId	GIII	SET	

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:99; N Pos. 352,415
Seq#:100; N Pos. 3861,3862,3863,3864,3865,3866,3867,3868,3869,3870,3871
Seq#:100; N Pos. 3872,3873,3874,3875,3876,3877,3878,3879,3880,3881,3882
Seq#:100; N Pos. 3883,3884,3885,3886,3887,3888,3889,3890,3891,3892,3893
Seq#:100; N Pos. 3894,3895,3896,3897,3898,3899,3900,3901,3902,3903,3904
Seq#:100; N Pos. 3905,3906,3907,3908,3909,3910,3911,3912,3913,3914,3915
Seq#:100; N Pos. 3916,3917,3918,3919,3920,3921,3922,3923,3924,3925,3926
Seq#:100; N Pos. 3927,3928,3929,3930,3931,3932,3933,3934,3935,3936,3937
Seq#:100; N Pos. 3938,3939,3940,3941,3942,3943,3944,3945,3946,3947,3948
Seq#:100; N Pos. 3949,3950,3951,3952,3953,3954,3955,3956,3957,3958,3959
Seq#:100; N Pos. 3960

VERIFICATION SUMMARYDATE: 12/17/2004PATENT APPLICATION: US/10/516,795TIME: 15:49:33

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:3001 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:99,Line#:2997

L:3012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:300

M:341 Repeated in SeqNo=99

L:3161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100 after pos.:3840

M:341 Repeated in SeqNo=100